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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Shigenori Tomonaga

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TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

SIDDIQI, MOHAMMAD A

ART UNIT

PAPER NUMBER

2154

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/652,986	<b>Applicant(s)</b> TOMONAGA ET AL.	
	<b>Examiner</b> Mohammad A. Siddiqi	<b>Art Unit</b> 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-9, and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-9, and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1, 3-5, 7-9, and 11-15 are presented for examination. Claims 2, 6, and 10 have been cancelled.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1, 3-5, 7-9, and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Yanai et al. (6,502,205) (hereinafter Yanai).

4. As per claim 1, Yanai discloses a computer-readable storage medium having a program for use in a host computer (212, fig 4) having a function of displaying at a user interface a plurality of management information items expressing access status (user interface provides configuring and monitoring

capabilities, col 12, lines 56-67 and col 13, lines 1-6) of a communication path for sending a data input/output request from said host computer (212, fig 4) to a storage device and returning result of the access request to said host computer, said storage device (20, 48, fig 1) having a plurality of disk drives (22a, 22b, fig 1) storing data sent from said host computer (212, fig 4) and a disk controller (16, 44, fig 1) controlling to store data sent from said host computer to at least one logical volume corresponding to the plurality of disk drives said communication path (40, fig 1) providing communication between a host port of said information processing device (elements of fig 1), a disk controller port of said disk controller, a communication cable connecting between said host port and said disk controller port, and a logical volume of said storage device (user interface provides configuring and monitoring capabilities, col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6), said program comprising:

code for updating at least one of said management information items being displayed to express present access status of said communication path when detecting that access failure occurs (col 15, lines 42-54) at said communication path based on an access to said storage device (status access, col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6), and/or updating at least one of said management information items being displayed when receiving from said user interface an input for updating said

management information items being displayed (configuring anticipates parameters and monitoring anticipates status of the paths, col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6),

code for displaying information between a communication path ID of said communication path (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 47, lines 1-6), a disk controller port ID of said disk controller port, a logical volume ID of said logical volume of said storage device, and state of said communication path indicating off-line or on-line (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 47-48, see the parameters for displaying purpose); and

code for changing the state of said communication path (col 32, lines 13-16) in which failure has occurred among displayed plurality of communication paths based on receiving failure information from said storage device (col 32, lines 1-16), while a failure has occurred in any one of said displayed plurality of communication paths (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 32, lines 1-16; col 47-48, see the parameters for displaying purpose).

5. As per claim 3, Yanai discloses in accordance with an input for updating said management information items being displayed, all of said management information items being displayed or part of said management

information items being displayed is updated to express present access status of a communication path (status access, col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6).

6. As per claim 4, Yanai discloses part of said management information items to be updated includes at least one of an execution number of data input/output as performed between said storage device and said host computer and a number indicative of access failure occurred at said communication path in proper execution of said data input/output (status access, col 8, lines 18-23; col 47-52, messaging examples).

7. As per claim 5, the claim is rejected for the same reasons as claim 1, above.

8. As per claim 7, the claim is rejected for the same reasons as claims 5 and 3, above.

9. As per claim 8, the claim is rejected for the same reasons as claims 5 and 4, above.

10. As per claim 9, the claim is rejected for the same reasons as claim 1, above.

11. As per claim 11, the claim is rejected for the same reasons as claims 9 and 3, above.

12. As per claim 7, the claim is rejected for the same reasons as claims 9 and 4, above.

13. As per claims 13, 14 and 15, wherein the state of said communication path is changed in real time based on receiving failure information from said storage device (dynamic sparing option, col 28, lines 40-61).

### ***Response to Arguments***

13. Applicant's arguments filed 08/14/2006 have been fully considered but they are not persuasive, therefore rejections to claims 1,3-5,7-9, and 11 -15 is maintained.

14. In the remarks applicants argued that:

15. **Argument:** Yanai does not teach or suggest a host computer having a function of displaying at a user interface a plurality of management information items expressing access status of a communication path for sending a data input/output request from said host computer to a storage device and returning result of the access request to said host computer, code for displaying information between a communication path ID of said communication path, a disk controller port ID of said disk controller port, a logical volume ID of said logical volume of said storage device, and state of said communication path indicating off-line or on-line; and code for changing the state of said communication path in which failure has occurred among displayed plurality of communication paths based on receiving failure information from said storage device, while a failure has occurred in any one of said displayed plurality of communication paths.

**Response:** Yanai discloses a host computer (212, fig 4) having a function of displaying at a user interface a plurality of management information items expressing access status (user interface provides configuring and monitoring capabilities, col 12, lines 56-67 and col 13, lines 1-6) of a communication path for sending a data input/output request from said host computer (212, fig 4) to a storage device and returning result of the access request to said host computer (212, fig 4), code for displaying information between a communication path ID of said communication path (col 8, lines 18-23; col



12, lines 56-67; col 13, lines 1-6; col 47, lines 1-6), a disk controller port ID of said disk controller port, a logical volume ID of said logical volume of said storage device, and state of said communication path indicating off-line or on-line (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 47-48, see the parameters for displaying purpose); and code for changing the state of said communication path (col 32, lines 13-16) in which failure has occurred among displayed plurality of communication paths based on receiving failure information from said storage device (col 32, lines 1-16), while a failure has occurred in any one of said displayed plurality of communication paths (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 32, lines 1-16; col 47-48, see the parameters for displaying purpose).

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 6,769,022 teaches monitor, managing and displaying the status of the storage devices.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE**

**FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A. Siddiqi whose telephone number is (571) 272-3976. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAS

 JOHN FOLLANSBEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100